

**Draft Summary of the Environmental Work Group Meeting  
Oroville Facilities Relicensing (FERC Project No. 2100)  
August 27, 2003**

The Department of Water Resources (DWR) hosted a meeting for the Environmental Work Group (EWG) on August 27, 2003 in Oroville.

A summary of the discussion, decisions made, and action items is provided below. This summary is not intended to be a transcript, analysis of the meeting, or to indicate agreement or disagreement with any of the items summarized, except where expressly stated. The intent is to present a summary for interested parties who could not attend the meeting. The following are attachments to this summary:

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| Attachment 1  | Meeting Agenda   |
| Attachment 2  | Meeting Attendees  |
| Attachment 3  | Revised Resource Action Tracking Matrix                    |
| Attachment 4  | Resource Action Classifications, revised August 26, 2003   |
| Attachment 5  | Draft Narrative Reports: EWG –13A and EWG - 20             |
| Attachment 6  | Narrative Report Presentation: EWG-13A, EWG-13B and EWG-20 |
| Attachment 7  | Draft Narrative Reports: EWG – 56, EWG – 57A and EWG – 68A |
| Attachment 8  | Progress Report: Resource Action Analysis; SP-G2           |
| Attachment 9  | Proposed Study Plan Change SP-T2                           |
| Attachment 10 | Progress Presentation: SP-W2, SP-W5 and SP-W6              |
| Attachment 11 | Summary of Potential Model Runs                            |

## **I. Introduction**

Attendees were welcomed to the EWG meeting. Attendees introduced themselves and their affiliations. The desired outcomes of the meeting were discussed as listed on the meeting agenda. The meeting agenda and list of meeting attendees are appended to this summary as Attachments 1 and 2, respectively.

## **II. Action Items – July 30, 2003 Environmental Work Group Meeting**

A summary of the July 30, 2003 EWG meeting is posted on the relicensing web site. The Facilitator reviewed the status of action items from that meeting as follows:

**Action Item #E102:** Provide a copy of Sonoma County Water Agency study that includes steelhead-rearing temperatures to Eric Theiss (NOAA).

**Status:** The study was provided to Eric Theiss.

**Action Item #E95:** Continue development of matrix and draft narrative reports.

**Status:** Terry Mills, Environmental Resource Area Manager (RAM) for DWR reported that the matrix continues to be updated as narrative reports are completed. Several narrative reports were discussed later in the meeting (see summary below).

Curtis Creel, DWR Modeling Coordinator and Engineering and Operations RAM provided a brief update of the recent modeling workshop and described the benchmark model run scenarios that are currently being run designed to provide 'bookend' information. Some results will be presented at the next modeling workshop in October. He explained his intention to hold workshops monthly as runs are completed and information becomes available to be shared with the collaborative and confirmed that the next workshop would likely be held in Oroville if an appropriate venue can be found.

### **III. Resource Action Discussion**

#### *Updated Tracking Matrix*

Mike Manwaring with MWH distributed an updated version of the tracking matrix (Attachment 3) containing recommendations from the Fisheries Task Force and asked the EWG to review and provide comments back to the Task Force. He noted that categories were assigned to most of the proposed resource actions, with a few remaining to be discussed by the task forces. He noted that EWG 98 was re-numbered as EWG 103. He also described a new column added to the matrix to identify nexus to project operations and explained that the descriptions of the four categories for nexus in the legend will be further refined. All of the Environmental resource actions are included in this matrix although some have been moved to the back. Mike suggested a column added to identify potential effects to special status species could be helpful.

Eric Theiss questioned the categorization of EWG 97A and Terry reminded him that the Fisheries Task Force had identified it as a 3 because there was not sufficient information and the task force would be revisiting the fish passage resource actions at their next meeting. DWR agreed to add information explaining why a particular category was chosen or what information is pending for a resource action to the comments section of the matrix. Terry reminded the EWG that DWR had previously agreed to write one or two paragraphs to explain why a resource action was placed in Category 4 and reminded them that the categorization is not final but rather open to discussion and inclusion of additional information that the EWG considers appropriate.

Terry Mills distributed a handout describing the resource action classifications (Attachment 4). This was provided to further clarify the categories. He described Category 1 to include resource actions that have sufficient information developed to determine they could reasonably be expected to produce beneficial results and are ready for analysis, while Category 2 includes resource actions awaiting Study Plan results before full assessment by the EWG. He noted that both Category 1 and 2 are moving forward with narrative reports and added that Category 2 resource actions do not necessarily become Category 1 when information becomes available. He suggested that Category 3 is the most uncertain, including resource actions for which information is not available or the science doesn't exist to answer the question. These could become Category 4 or 5 or could be brought to the negotiation table during the settlement process. Category 4 resource actions are not recommended for further action however if necessary these actions can be revisited and modified to meet a specific need. Category 5 resource actions are duplicative and have been included in an existing resource action or are already required under existing regulations or agreements.

#### *Task Force Summary - Fisheries*

Terry Mills noted that the Fisheries Task Force continues to develop the technical details associated with each resource action and the EWG will continue to receive the Task Force recommendations for review as the resource actions are developed over the next several months. He reminded the EWG that the Fisheries Task force plans to meet from 9 am to noon on September 3, 2003 at NOAA Fisheries office in Sacramento to clean up the matrix from the last task force meeting and again from 9 am to 3 pm on September 19<sup>th</sup> at SWRI in Sacramento to discuss the remaining fisheries resource actions including fish passage.

#### *Content and Intent of Narrative Reports*

The EWG discussed the content and intent of the narrative reports. Chuck Hanson representing the State Water Contractors offered that they are threshold decision documents designed to educate the reader when comparing resource actions and in making a decision whether an action is something that could or should be done by DWR. The EWG agreed that the narrative

reports should include a description of the action and nexus to the project, biological benefits and effects, some cost information, and some assessment of the uncertainties and constraints or limits to the action. A summary of existing conditions would help to frame the nexus discussion. The report should also describe any conflicts with other actions as well as potential synergisms and conclude with a recommendation on whether or not to move the resource action forward. The narratives are stand-alone documents with linkages to each other.

Eric Theiss asked if the completion of narrative reports marks the completion of studies or modeling. Wayne Dyok with MWH suggested that the narrative reports are really case specific, noting that sometimes you need more information to make a decision on one action than another. A goal of the narrative reports is to provide adequate information to assist the decision-making process, not to implement a particular action. Some actions may take several years to develop adequate information so they could go forward under an adaptive management strategy. Eric expressed concern that time is running out to complete studies he expects to see, particularly associated with fish passage. Wayne suggested that DWR does not envision conducting additional studies specifically for fish passage. Eric requested a definition of the narrative reports and Wayne offered to draft a description for the EWG to review.

#### *Priority Resource Actions – Narrative Reports*

Draft Narrative Reports were distributed for EWG-13A and EWG-20 related to large woody debris (LWD) placement (Attachment 5). Dave Olson with the consulting team discussed the narrative reports using the presentation provided as Attachment 6 to this summary. The EWG discussed the potential benefits and drawbacks to additional LWD and noted that orchard owners along the lower Feather River routinely dump dead trees and cuttings into the river from their property, contributing to the LWD budget downstream of the project. The EWG discussed two options: add LWD where natural recruitment occurs and let nature move the material downstream; or anchor LWD in those areas determine to provide the most benefit. Wayne Dyok suggested that the EWG consider what the goal is and then determine if there is enough LWD or there is a need for enhancement. Chuck Hanson suggested that on a large scale, there may be adequate LWD in the system however on a microhabitat scale there could be significant benefits particularly with regard to placement near rip rap areas.

Also in the presentation was a discussion of EWG-13B that deals with structure placement such as logjams or point hardening to encourage habitat development. The narrative report was not distributed to the collaborative. He described the design considerations as similar to EWG-13A and EWG-20 and noted the longevity and functionality of any such structure would be dependent on the river flow regime. Chuck Hanson felt this narrative reports needed more information before a decision can be made. The EWG discussed how much information is necessary to make a decision to move a resource action forward for further analysis and agreed that more specificity from the task forces would be helpful. The EWG also suggested that a section describing potential negative affects from a resource action be added to the narrative reports. Dave Olson suggested that the narrative reports represent one step in a gated process in which Category 1 and 2 resource actions are developed enough to gain comfort that the action is feasible and worthy of further study, followed by an evaluation of cross-resource issues and preliminary design preparation. Terry Mills reminded the EWG that the resource actions are building blocks and will be combined into groupings that provide the suite of activities that best meet goals and objectives.

Dave Bogener with DWR distributed narrative reports for EWG-56, EWG-57A and EWG-68A (Attachment 7) regarding waterfowl needs at the Thermalito Afterbay, including nesting cover enhancement, brood pond construction and pond recharge through re-operation of the Afterbay water surface elevation. He noted the ponds provide potential habitat for special status species

such as giant garter snake and red-legged frog. These species have not been found in the project area however DWR plans to assume presence as requested by the US Fish and Wildlife Service (FWS). Chuck Hanson questioned project nexus for construction of brood ponds and Dave responded that project operations result in fluctuating water levels that affect predation levels. The EWG discussed the impact of operating the Afterbay to recharge the ponds on power generation or water supply and Curtis Creel with DWR suggested there is no effect on water supply in fact the project has been operating to recharge the ponds for the past 15 years with no discernable impact. Power generation impacts could be potentially significant however the ponds stayed full this year without assistance so the cost was zero. The EWG discussed the potential undesirable effects to special status species from providing habitat for predator bass. Participants discussed how EWG-57A would create a larger role for DWR in the provision of nesting cover at the Thermalito Afterbay. The EWG discussed the need to evaluate potential cost in terms of water supply and energy verses potential biological benefit.

#### **IV. Study Deliverables and Implementation Updates**

##### ***Updates***

##### ***SP-G2***

Koll Buer with DWR presented an update on SP-G2 with associated resource actions to the EWG (Attachment 8). He described several resource actions that include hydraulic or mechanical modifications to enhance fish habitat including excavating side channels, removing riparian berms, augmenting flows, and placing boulders for habitat.

Koll provided the EWG with a progress report on SP-G2 including Fluvial 12, the modeling tool expected to model movement of sediment and predict long term changes to the Feather River (details included in Attachment 8). All data has been entered into Fluvial 12 and numerous calibration runs completed for the calibration reach. Koll reported that most of the study reach data have been entered. He described problematic sediment data for the lower part of the Feather River. Hydraulic mining in the last century resulted in 30 feet of sediment deposition in the lower river channel. The river is currently cutting through that somewhat resistant deposit. Koll noted that on a broad scale, the hydraulic mining slowed meander changes to the valley portion of the river but no impacts on a finer scale have been seen. Koll also reviewed the indicators of hydraulic alteration (IHA) analysis (limited copies of a draft report were provided), riffle characteristics studies, and meander belt mapping (see Attachment 8 for details).

Terry Mills proposed the Terrestrial Task Force schedule a meeting to clarify the terrestrial matrix. The meeting was tentatively scheduled for September 25 or September 26 from 9 am – 1 pm at the Oroville Field Division. DWR will distribute a notice of the final meeting date.

##### ***Methodology Change – SP-T2***

Dave Bogener distributed a proposed study plan change to SP-T2 (Attachment 9) for review and approval by the EWG. The revision acknowledges the FWS request to assume presence of giant garter snake and red-legged frog within appropriate habitat rather than conducting protocol level population surveys. Dave noted that surveys for red-legged frogs are only valid for two years so such surveys conducted now would not be considered valid at the time of FERC license issuance.

The proposed revision also alters the vegetation survey to include all elderberry bushes within 100 feet of project features in the OWA and to defer protocol level surveys until an activity is proposed that could affect individual bushes. The EWG approved all proposed changes to SP-T2.

## **Updates**

### **SP-W2**

Jerry Boles with DWR provided an update (Attachment 10) on the mercury results as part of SP-W2. Jerry noted he had not intended to provide a written summary but would prepare a brief interim report.

### **SP-W3**

An update will be provided at the September EWG meeting.

### **SP-W6**

Jerry Boles reported that since there had been no pumpback, he was unable to obtain some of the anticipated data. Curtis Creel suggested he work with Jerry to assist with operational pumpback activities that might help in data collection associated with pumpback operations. Curtis described one of the modeling run scenarios that will evaluate the effects of eliminating pump back and peaking operations at the facility. Jerry provided a copy of the E&O workgroups list of potential model runs (Attachment 11) some of which will be used in conjunction with this study to address issues in the work group. Curtis added that he intends to continue working closely with the EWG to refine the model scenarios. The EWG discussed the potential for the Afterbay to thermally stratify and Jerry Boles reported that the Afterbay does not stratify however waters in the Diversion Pool exhibit 1 degree Centigrade of cooling from surface to bottom.

### **SP-W7, SP-W9**

Updates will be provided at the September EWG meeting.

### **SP-W5**

This study evaluates project effects on groundwater and initial data collected from ponds are indicating high levels of aluminum: the source is not clearly understood at this time. The EWG discussed the criteria for pond selection and relative importance of potential contaminant movement either from the ponds to the river or vice versa.

## **VI. Next Steps**

Terry Mills asked the EWG for feedback on how the process is working so far. Eric Theiss asked if there was a way to articulate status of study plans and expectations for that process. Terry agreed that a discussion of expectations might be helpful but suggested it occur as a separate meeting from the current EWG effort to evaluate resource actions. Wayne Dyok suggested the EWG focus right now should be to complete the necessary narrative reports. Rich DeHaven with FWS noted he didn't have a good sense if we are on a schedule that will provide the necessary specificity to begin negotiations. Chuck Hanson added a concern that the negotiation process will accelerate over the technical issues and we will not have adequate time to interject critical information. He suggested the task forces focus on the narrative reports and not get sidetracked into the categorization process. Mike Manwaring indicated that most of the resources actions had been assigned categories and would not be changed unless comments are received. DWR and the consulting team will revisit the Category 1 resource actions to confirm they are correctly categorized.

The participants agreed that the next few EWG meetings would have essentially the same agenda as today as the EWG works through the information generated by the technical task forces. The next Environmental Work Group meeting is:

Date: September 24, 2003  
Time: 9:00 a.m. – 4:00 p.m.

Location: Oroville Field Division

### **Action Items**

The following action items identified by the Environmental Work Group includes a description of the action, the participant responsible for the action, and due date.

**Action Item #E104:** Describe why each resource action is categorized as 2, 3 or 4 in the comments section of matrix.

**Responsible:** DWR/Consulting Team

**Due Date:** September 24, 2003

**Action Item #E105:** Define the contents and intent of the narrative reports.

**Responsible:** DWR/Consulting Team (Wayne Dyok)

**Due Date:** September 24, 2003

**Action Item #E106:** Confirm that resource actions categorized as 1 are ready to move forward to the Plenary Group and the PDEA Team for analysis.

**Responsible:** DWR/Consulting Team

**Due Date:** September 24, 2003